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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,614

03/11/2004

Jose Luis Moctezuma de la Barrera

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EXAMINER

CHAO, ELMER M

ART UNIT

PAPER NUMBER

3737

MAIL DATE

DELIVERY MODE

06/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/798,614	Applicant(s) MOCTEZUMA DE LA BARRERA ET AL.	
	Examiner ELMER CHAO	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-42, 45, 46, 56-60, 63, 76-79, 84, 87 and 89-95 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-42, 45, 46, 56-60, 63, 76-79, 84, 87 and 89-95 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgement is made of the amendment filed 1/16/2008.

Election/Restrictions

2. Claims 1-5, 8-12, 15, 20, 24-29, 31, 32, 37, 38, 47-55, 61, 62, 64-75, 80-83, 85, 86, and 88 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/14/2008.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/16/2008 has been entered.

Response to Arguments

4. Applicant's arguments with respect to the pending claims in the application have been considered but are moot in view of the new ground(s) of Rejection.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 56-60, and 79** are rejected under 35 U.S.C. 102(b) as being anticipated by Bova et al. (U.S. 6,390,982). Bova et al. teaches a method of determining a change in position (col. 6, lines 45-64) using a surgical navigation system (Fig 2, Item 28); a substrate capable of being removably mounted to an outer surface of a body (Fig 2, Item 24), wherein the body includes a bony anatomical structure (Fig 2, see spinal cord illustration beneath Item 22); a sensor of three LEDs attached to the substrate that can be tracked by the surgical navigation system (Fig 2, Item 26); a positional device attached to the substrate that determines a position of the anatomical structure, wherein the positional device is an ultrasonic imaging device (Fig 2, Item 22) capable of 3D imaging and containing an array of multiple ultrasonic transducers (col. 2, lines 42-50; col. 6, lines 25-33); a first circuit for calculating a global position of the anatomical structure by correlating a position of the sensor and the position of the anatomical structure (Fig 2, Item 20; col. 6, L36-44); a second circuit for displaying the global position of the anatomical structure on a display unit (Fig 2, Item 20; col. 6, lines 65-57).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 39-42, 45, 63, 76, 77, 84, 89, 92, and 93** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bova et al. in view of Acker et al. (U.S. 5,558,091). Bova et al. teaches the limitations as discussed above, but fail to explicitly teach a magnetic transmitter attached to the substrate and a magnetic sensor with means for attachment to the anatomical structure. However, Acker et al. teach a magnetic transmitter and a magnetic sensor with means for attachment to the anatomical structure (claim 41 for example). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Bova et al. to instead use the magnetic sensor in place of Bova et al.'s ultrasound transducer along with the magnetic sensor in order to provide global positioning of the anatomical structure relative to the room's fix frame of reference (col. 4, line 63 – col. 5, line 27, refer to superposition). Such a modification would also make it obvious to provide specific means necessary to attach the substrate to the body, close to the site of imaging in order to increase the efficiency of the interaction between the magnetic transmitter and sensors by minimizing the distance between them.

9. **Claims 46, 78, 87, 90, 91, 94, and 95** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bova et al. in view Acker et al., further in view of Manglardi et al. (U.S. 5,665,092)

Regarding claims **46, 78, 87, and 94**, Bova et al. and Acker et al. teach the limitations as discussed above but fail to explicitly teach a retrieval device being a wire. However, in the same field of endeavor, Manglardi et al. teach a retrieval device being a wire (Fig. 20). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Bova et al., Acker et al., and Manglardi et al. to teach a retrieval device being a wire in order to remove the sensors from the patient after imaging (for motivation see col. 7, lines 29-39).

Regarding **claims 90 and 95**, Bova et al., Acker et al., and Manglardi et al. teach the limitations as discussed above but fail to explicitly teach the wire being connected to the substrate. However, the wire is used for removal of the marker and would work as long as it is eventually used to remove the sensors. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Bova et al., Acker et al., and Manglardi et al. to teach attaching the substrate to the wire in order to conveniently remove the sensors as the substrate is removed from the area of interest (for motivation see col. 7, lines 29-39).

Regarding **claim 91**, Bova et al., Acker et al., and Manglardi et al. teach the limitations as discussed above but fail to explicitly teach placing the magnetic sensor through a sleeve with an impaction device. However, in the same field of endeavor,

Manglardi et al. teach placing markers through a sleeve with an impaction device (Fig. 1). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Bova et al., Acker et al., and Manglardi et al. to teach placing the magnetic sensor through a sleeve with an impaction device in order to achieve higher accuracy in placing the sensor in a desired location (col. 1, lines 26-35).

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elmer Chao whose telephone number is (571)272-0674. The examiner can normally be reached on 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571)272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3737

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian L Casler/
Supervisory Patent Examiner, Art
Unit 3737

/E. C./
Examiner, Art Unit 3737
6/22/2008